Nutrition, hydration and ergogenic aids strategies in ultraendurance mountain events

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Abstract

BACKGROUND: The purpose of the present research was to analyze nutrition, hydration and ergogenic aids strategies in ultraendurance mountain events.

METHODS: A total of 386 ultra endurance mountain races finishers were analyzed. They were divided into three groups according to their race distance: G1: distance less than 45 km (n: 250); G2 distances between 45 and 90 km (n: 71); G3 distances longer than 90 km (n: 65). The ergogenic, nutritional and hydration strategies were quantified after each race by a questionnaire.

RESULTS: We found a higher ingestion of (0.56 ± 0.95), caffeine (G3 M±SD; 203.8±211.5 mg), water (G3 M±SD; 7.1±3.7 l) and Portion of Sandwich (nutrition 5.3±7.4) NSAID in longer distance probes. Higher performance runners in low and medium distances consumed a significantly ($p>0.05$) lower quantity of gels (higher 0.76±0.98 vs lower 1.38±1.38), and muesli bar (higher 1.09±1.13 vs lower 2.04±1.94), and in long distances. Higher performance consumed more water (M±SD; higher 8.23±3.92 vs lower 6.12±3.28) than lower performance ones. They also could maintain a higher rated of perceived exertion than lower performance (G3 M±SD; higher 16.7±2.28 vs lower 18.2±1.71).

CONCLUSIONS: Higher distance presented higher nutritional, caffeine and NSAIDs ingestion than lower distances, also, higher performance athletes of higher distance presenter higher water and nutritional ingestion than lower performance ones. In Lower distance probes, higher performance athletes presented lower hydration and nutritional ingestion than lower performance athletes.

Keywords:

Performance, NSAIDs, Hydration, Running